Online COD (Chemical Oxygen Demand) Analyzer

Summary

Chemical oxygen demand (COD) is a chemical method to measure the amount of reduced materials that need to be oxidized in water samples. Under certain conditions, the amount of oxidants consumed by the reduced materials in the oxidizing 1L water samples under certain conditions is considered as an index. The amount of oxygen required for each water sample is converted to a milligram of oxygen, which reflects the reduced materials in water, which reflects the reduced materials in water. Pollution index is also one of the comprehensive indexes of organic matter relative content.

Principle

Water samples, potassium dichromate digestion solution, silver sulfate solution (silver sulfate as a catalyst can more effectively oxidize straight chain fatty compounds), and the mixture of concentrated sulfuric acid is heated to 170 degrees C, the color of the organic matter in the dichromate ion oxidation solution will change. The change is converted into COD value output. The amount of dichromate consumed is equivalent to the amount of oxidizing organic matter.

Feature

■The sensor is tested by dual beam infrared scattering photometer. It has good repeatability and stability.

■The ISO7027 standard method (red light scattering technology) can eliminate the influence of sample color.

■The function of self diagnosis is set up to ensure the accuracy of the data.

■Optional cleaning brush automatic cleaning function, greatly reducing the amount of sensor maintenance;

■The digital sensor has strong anti-interference ability and long transmission distance.

■The standard digital signal output can be integrated and networked with other devices without controller.

■The sensor is easy to install on site and plug and play.

Parameter

Measure Range	10~2000mg/L COD
Accuracy	≤±5%
Repeatability	≤±5%
Measure Interval	Min Interval= 40min , can adjust the dissolve time from 5 to 120min according to the water sample
Sample Interval	Time Interval (20~9999min) and Time Point Measuring
Calibration	Automatic Zero and Sensitive Calibration
Calibration Interval	Adjustable from 1 to 99 days
Maintenance Interval	one time/month 30min/time
Analog Output	1 way 4~20mA output (optional 2 way 4~20mA output)
Communication Joint	RS232 or RS485
Switch Signal	Optional 1-6 way Relay Output , Capacity 220VAC/2A
Comparsion with Real Water Sample	Error≤±10%
MTBF	≥720h/time
Ambient Requirement	Suggest Temperature:+5~28℃ ; Humidity≤90%
Size	H 1430×W 500×D 403 (mm) 。
Power	AC220±10%V , 50±10%Hz , 5A
Other	Abnormal alarm and power failure will not lose data; touch screen display and instruction input; After abnormal reset and call after power failure, the instrument automatically discharges reactant in the ejector and automatically returns to work state.
Application	On line monitoring of import and export water quality of municipal sewage treatment plant, on-line monitoring of industrial pollution source wastewater, on-line monitoring of industrial process water, etc.